SI Indicators Framework Workstream – Malawi Africa RISING October 6th 2015 - Notes

Context, depending on research questions – what are we monitoring here? Useful to make decisions.

Indicators become metrics when we make decisions

Ex-ante analysis

- Does it look profitable? Is it adoptable? Under what context?

Ex-post

* How are farmers who adopted SI technologies implementing it (adaptability)

SI indicators allow us to assess the impact of a technology, innovation or decision tool if it were adopted and implemented, at scale.

SI Indicators Framework: Thinking about metrics

Thinking about scale (and timing of measurements)

**Indicators discussion by domain - consider key indicator goals over time and space, capturing variation over time**

(indicators in **bold** are strongest candidates for universal use)

Context important - What is this SI indicator framework intended for? What it does and does not do.

Productivity (Mark, Peter?)

OUTPUT per AREA (plot level measurements, can aggregate to farm or landscape level; household or farm level farmer recall for some purposes)

* **Yield (kg/ha/season)** – output per unit area
  + Crop cut or farmer recall adjusting for intercrops
  + As a proportion of attainable yield (yield gap)
  + Fodder production, rangeland production
  + Animal productivity per land area (difficult)
  + Forest production
* **Yield stability** – how many years?
* Input use efficiency (water use efficiency, fertilizer use efficiency, labor use efficiency)
* Cropping intensity (plant population density, over space and time)

Economic (Bekele, Phil)

* ***Agricultural income (household, farm, enterprise, plot, crop) –*** *proxy for poverty (direct/indirect influence of income – captured elsewhere), percent sold (complex could use indices) how much sold, net buyers vs how much consumed*
* **Profitability (cost/benefit analysis, per enterprise, crop etc) sensitivity and variability**
* Input and output prices difficult to measure – how and who is going to measure this
* **Labor returns**
* Poverty rates at various scales
* Market access (fitness to market)
* Market participation indices

Environmental (Cheryl Palm, Simon)

* **Soil Quality**
  + **Soil carbon**
  + **Nutrient balance**
* Greenhouse Gas emissions (transfer functions)
* Erosion (indicators)
* Biodiversity (plot, farm, landscape), agbiodiversity and natural biodiversity
* Soil cover
* Water availability/access
* Water quality
* Perennial cover
* Crop and forage biomass
* Land cover and land use
* Land quality (grazing areas biodiversity, and land cover, invasive species)
* *Resilience (what does this mean?)*

Human condition/Healthy lives (Mariama Fofanah, Sieg Snapp)

* **Food Security**
* **Nutrition**
* Education/training (formal or informal)
* Participatory bidirectional learning could enhance capacity, ability to adapt

Social (Phil Grabowski)

* **Gender equity (women empowerment in ag index – gold standard)**
* Equity for marginalized groups
* Conflicts
* Collective Action

Each team leader will lead on developing the SI indicators further for this domain, finalized products to send to Phil Grabwaski oct 7th by 5pm.